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## DDT --- NEW INSECTICIDE



D.P. 2 Report of DDT research in the Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture. Broadcast by Ernest Moore and Duke DuMars, Office of Information, U.S.D.A. Script by Josephine Hemphill. Recorded November 6, 1944. Time: 7 minutes, 58 seconds without announcer's parts)

ANNOUNCER: (LIVE)

From the United States Department of Agriculture — a visit by transcription with Ernie Moore and Duke DuMars. Today our Farm Science Reporter will tell us about that remarkable new insecticide -- DDT.

TRANSCRIPTION

ERNIE MOORE:

In fifteen years of reporting research, I've never run on to a story with more possibilities for the whole human family than this story of DDT. But Duke, — when I talked with Department entomologists, the one thing they kept hammering-away on was this: "Let's not get excited about DDT. Don't use any superlatives. Remember its limitations." But how in the world — am I going to talk about anythin so exciting — and not get excited?

DUKE DUMARS:

Well, isn't it true — DDT is our most unusual insecticide?  
MOORE:

It kills more kinds of insect pests — it kills 'em with a lighter dose — and it has the greatest "staying power" of any insecticide yet discovered.

DUMARS:

Then why don't you go ahead and call it a super —  
MOORE:

Watch it, Duke! No superlatives.

DUMARS:

Okay.

MOORE:

But you'll understand how hard it is — if I ask you a few questions.

DUMARS:

I don't know anything about DDT!

MOORE:

I know you don't. But what would you think, Duke — if I'd say that after the war, if you run a dairy farm, you'll be able to spray the inside of your barn with DDT — and for as long as three months, kill any fly that dares to crawl over the walls.

DUMARS:

You mean spray the walls just once?

MOORE:

One time.

DUMARS:

Can you prove it?

MOORE:

Sure! And you can do the same thing with the walls of your kitchen, and dining room. Now if you are bothered with bedbugs, —

DUMARS:

I am not bothered with bedbugs.

MOORE:

Well, any time you are -- you may be glad to know you can spray your mattress with DDT -- and keep the bugs away for at least six months.

DUMARS:

If that isn't a super -- !

MOORE:

Watch it, Duke . I might also add -- DDT'll help destroy the clothes moth, cockroaches, and mosquitoes. It will control the fleas on your dog -- and flea beetles and potato beetles in your Victory garden. Now in view of all this, what is your considered opinion?

DUMARS:

Well, conservatively speaking, I'd say maybe you've got something there.

MOORE:

Even the entomologists ought to let us go that far. You know what DDT is doing for the soldiers. Every fighting man in the Army carries a two-ounce can of the stuff. He can dust this powder in his underwear -- just half an ounce is enough -- and be safe for at least three weeks from that terrible pest, the body louse.

DUMARS:

The pest that carries typhus fever.

MOORE:

Which is one of the worst diseases of wartime. When I was talking the other day with Doctor Fred Bishopp, -- you know who he is?

DUMARS:

Assistant Chief of the Bureau of Entomology and Plant Quarantine.

MOORE:

He's directing the research work on DDT. Well; he made a statement that impressed me very much. He said, Duke, that one of the most terrible indictments of the human race is that we permit a specific parasite of man to survive -- when it could so easily be destroyed.

DUMARS:

He thinks body lice could be wiped out entirely?

MOORE:

That's what he said. But right now, practically all supplies of DDT are going to war. There just isn't any for the general public. Except for small amounts used for experimental work, our soldiers are getting the entire output. Do you happen to know what DDT stands for?

DUMARS:

It might stand -- for "double delirium tremens."

MOORE:

It certainly does! To the louse or fly that comes in contact with the stuff.

DUMARS:

Isn't DDT short for a chemical?

MOORE:

Yes. Dichloro-diphenyl-trichloroethane. Discovered in Germany in 1874.

DUMARS:

But the Germans didn't follow it up.

MOORE:

Evidently not. In 1939 it was patented by the Geigy Company in Switzerland. In 1942 the United States Department of Agriculture, working with the Surgeon General of the Army, set out to find something -- and find it quick -- that would protect our men from the body louse. Many different chemicals were tested. Nothing was good enough. Then late in 1942 they got hold of one pound of DDT. It looked so promising -- experiments were started right away.

DUMARS:

In the Government laboratory -- in Orlando, Florida.

MOORE:

That's right -- and then in many other laboratories. By early spring of 1943, they had the most effective louse powder the world has ever known.

DUMARS:

And they didn't waste any time getting it to the Army.

MOORE:

It was flown to Africa, and the South Pacific, and to people in the liberated countries. You've seen pictures of the Army using DDT in Naples.

DUMARS:

Saw the news reel -- how they stopped a typhus epidemic.

MOORE:

And in just a few weeks, too. But now let's start a new chapter. Let's take a conservative look at what DDT may mean to the farmer when the war is over.

DUMARS:

You said a dairy farmer could spray his barn just once, and keep the flies down for three months.

MOORE:

And I meant just what I said. In one experiment with stable flies, a milk barn and a feed room were sprayed with DDT -- and almost immediately the fly population was cut down 95 percent.

DUMARS:

Mighty hard to believe.

MOORE:

But it's true just the same. Experiments prove -- DDT will control flies all around the barn. Wherever it's used. Ever try to harness a high-spirited horse when the flies were biting?

DUMARS:

Have you ever tried to milk a cow, —

MOORE:

I certainly have! The way she stomps her feet, and switches her tail, —

DUMARS:

And cracks you one across the face!

MOORE:

With cockle burs in her tail.

DUMARS:

Yea man!

MOORE:

I can feel it yet. Well, after the war, it looks as if we'll control the flies. control mosquitoes that carry yellow fever and other diseases...control fleas that along with rats carry bubonic plague.

DUMARS:

That would really be wonderful.

MOORE:

Another thing -- some farmers have to contend with lice on cattle and sheep and goats. Well, experiments show that one dipping, in a solution of DDT -- just one dipping, mind you -- may get rid of the lice on a whole herd of livestock. And besides doing all these amazing things, —

DUMARS:

Watch it, Ernie!

MOORE:

I just don't see how anybody can tell a story like this, and not —

DUMARS:

No superlatives. What did the entomologists say?

MOORE:

Okay. Now where were we.

DUMARS:

Besides controlling all the insects you've just mentioned, --

MOORE:

Besides all that, DDT looks very promising --

DUMARS:

Careful!

MOORE:

Looks — just plain promising.

DUMARS:

For what?

MOORE:

For controlling certain orchard and garden pests. Cabbage caterpillars, Colorado potato beetles, flea beetles, and the pesky Jap beetle.

DUMARS:

Jap beetle grubs?

MOORE:

Even the grubs, Duke. It kills the gypsy moth, the Oriental fruit moth, and the codling moth.

DUMARS:

That's a mean one.

MOORE:

One of the worst. And now we must tell what DDT will not do. Among serious crop pests it will not control are the cotton boll weevil, the cotton leaf worm, the Mexican bean beetle — and some of the mites injurious to apples. Unfortunately, it does kill the honeybee. And without the honeybee to pollinate many fruit and seed crops, those crops might be a failure.

DUMARS:

So would the honey crop.

MOORE:

It certainly would. Also, I'm sorry to say, DDT kills some of the other good insects, including our friend the ladybird beetle.

DUMARS:

And if you kill off the good insects, you upset the balance of nature.

MOORE:

Right! So, as Doctor Annand says — he's Chief of the Bureau of Entomology and Plant Quarantine — this new insecticide is not an unmixed blessing. They must find ways to use DDT so it will do the least harm to our insect friends, and still knock out our insect enemies. They must learn how much is safe to use on crops, and not build up injurious amounts in the soil.

DUMARS:

And of course — they have to know more about any possible harmful effects of fish and wild animals.

MOORE:

That's right. And on livestock, and man. As with other new insecticides, there are many problems yet to be worked out before DDT can be recommended to the general public.

DUMARS:

But even at that! When Doctor Bishopp was telling you to be conservative, --

MOORE:

I forgot to say, he's just back from the South Pacific. And to hear him tell what DDT is doing for the soldiers and sailors and marines -- would do your heart good!

DUMARS:

I've read they're spraying some of the islands with DDT.

MOORE:

Yes, for the first time in history, they've sprayed an entire island with an insecticide. Just twenty-two hours after the first planes landed on the airfield, a Marine Corps torpedo bomber was covering the whole island with a fine mist of DDT solution. Flying over the mangrove swamps, where mosquitoes breed.

DUMARS:

For the first time in history.

MOORE:

That's right, Duke.

DUMARS:

Could Doctor Bishopp -- tell you a thing like that -- and not get excited about DDT?

MOORE:

Well, to tell the truth -- after we had talked over all its limitations, and I had agreed that we must not over-do the story -- then he said, Duke, sort of half to himself, —

DUMARS:

He said what?

MOORE:

"It's marvelous," he said, "what DDT promises for the future of mankind."

ANNOUNCER: (LIVE)

You've heard a report on DDT, a new insecticide -- what it will do and what it won't do. As Mr. Moore says, there will be no supplies of DDT for the general public until the war is over, so don't ask for it yet. This is the second in a series from the United States Department of Agriculture on how "Farm Science Serves the Nationa."

